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5	(Attitude)	2.1.2
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11		3.2.1.2
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14	- 6.2.1.2
24	2.2
24	1.2.2
28	2.2.2
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32	1.3
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37	6.3
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38	1.4
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61		(9)
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71	(25,50,75)	
		(11)
74	(25,50,75)	
		(9)
77	(25,50,75)	
		(7)
80		(11)
83		(9)
86		(7)

2014 _

(11,9,7)

(142)

(11,9,7)

(.80, .72, .65)

($\alpha \leq 0.05$)

(7)

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ABSTRACT

The Effect of Variance in Item Classifications in Thurston Scale on the Psychometric Properties of the Scale

Kamleh Younis Al-Saraireh

Mu'tah University, 2014

This study aimed to investigate the effect of Defiant in Item classifications in Thurston scale on the psychometric characteristics of the scale. An instrument to assess attitude toward Psychology was developed based on equal appointing internal. using three item classifications: 11-points scale, 9- points scale, and 7- points scale. The instrument was administered on a sample of (142) male and female students from the faculty of Educational Sciences. Results regarding reliability of the three models indicated a good degree of internal consistency for these models, 0.65, 0.72, and 0.80 respectively, as estimated using Cronbach Alpha. For the results regarding the comparison of Cronbach Alpha among the three models, they indicated significant statistical differences among the three models and these differences were in favor of the 7-points scale at the level ($\alpha \leq 0.05$) which indicates that this scale is the preferred one among the three Thurston scales

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$(\alpha \leq 0.05)$

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(Attitude)

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:(Thurston)

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. (11,9,7)

(psyche) : 1.2
 (psychology) 1.1.2
 (Loges)
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(General (Social Psychology)
 Psychology)

.(2011)
 (Allport)

.(2006)

(Attitude) 2.1.2
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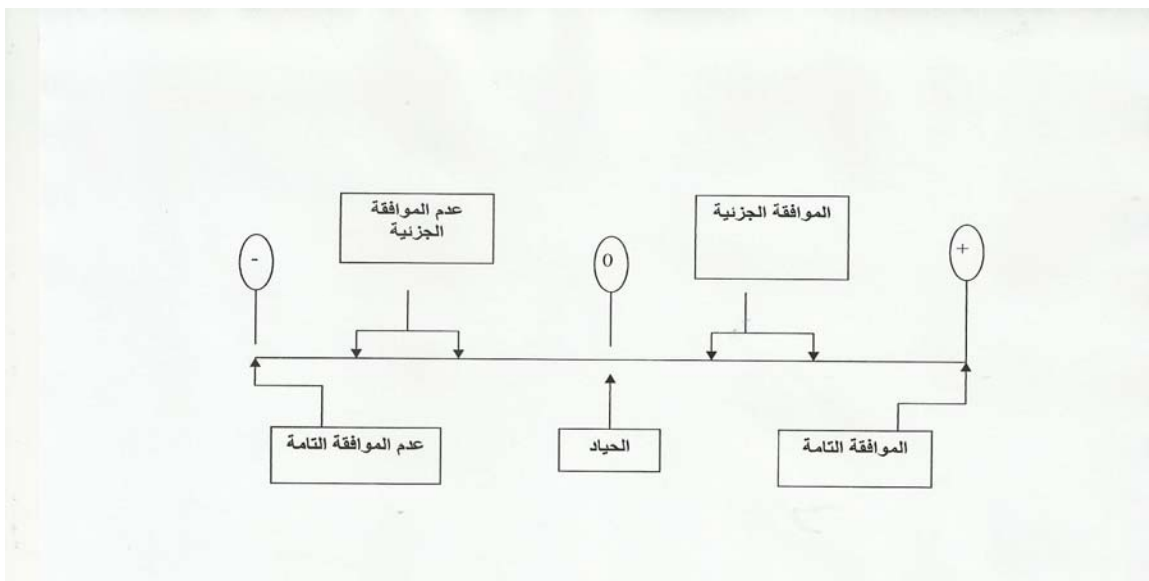
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 (H.Sepencer,1962)
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 (Allport, 1961)
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 : (Cognitive Component) -1

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:(Behavioral Component) -3

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(Value)

(Trends)

.(Belief)

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.(2011)

(Measurement) (Steven,1946)

(Lord &

(Torgerson,1958)

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(Educational Measurement)

(Psychological

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.(2005)

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:(Bogardies) - 1

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(Wundt,1879)

(Social

(Bogardies,1925)

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:(Guttman Scale) -2

(Cumulated Scale)

(Scalogram Analysis)

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(1944)

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.(Edwards,1957)

.(1995)

(Edwards,1957)

(Response- Centered Approaches)

.(2009)

.(Likert Scale) - 3

(1932)

(Method of

.(Summated Ratings)

.(2008)

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(Unfavorable)

(favorable)

.(Edwards,1957; Maranell,1974)

(1995)

(Subject-

Centered Methods)

(2009)

(Thurston Scale). - 4

(Stimulus- Centered Methods)

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(1800)

.(2009)

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(The Method Of Paired Comparision) -

(2002)

(Frequency Matrix)

(Z-Score

(Proprtions Matrix)

Matrix)

(Adjusted

.(2011) Scalar Values)

(190)

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$$\boxed{N \quad [N*(N-1)] / 2} \dots\dots\dots 1$$

Method Of Equal Appearing)

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.(Intervals

(Allport & Hartman,1926)

.(2002)

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(1928)

(Thurston & Chave)

.(2012)

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.(Edward,1957)

(30-60) - 2

(Edward,1957)

.(2002)

(Thurston)

:(Maranell ,1974)

(11) :

.(11) (1)

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.(A,B,C,D,E,F,G,H,I,J,K)

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(11)

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-3

(Scale Value)

(Median)

:(Maranell ,1974)

$$S=L+[0.5-\sum P_o]/P_w)*I$$

.....2
:

:S

:L

: $\sum P_o$

: P_w

(1) :I

(25,50,75) -4

(Semi _ Inter _ Quartile Range)

(Maranell,1974)

(20-25)

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(Q)

$$\boxed{Q = \frac{Q_{75} - Q_{25}}{2}} \dots\dots\dots 3$$

(25 = Q₂₅) (75 = Q₇₅)

:

25

$$\boxed{C_{25} = L + [0,25 \cdot \sum PO] / PW \cdot I} \dots\dots\dots 4$$

.25 = L

.25 = $\sum PO$

.25 = PW

.(1) = I

-:

75

$$\boxed{C_{75} = L + [0,75 \cdot \sum PO] / PW \cdot I} \dots\dots\dots 5$$

.75 = L

.75 = $\sum PO$

. = PW

.(1) = I

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.(Maranell,1974)
(The Method Of Successive Intervals)

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.(2005)
(Edwards,1957)

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(Daniel, Neeley,	
	Lsaacson & Howard, 2012)
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	(25)

(Petil & Chauhan, 2012)

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.(0.72)

(Kendra, Chauhan & Chauhan,

2011)

(16)

.(0.72)

(Yiu & NG,2004)

(Visual Analogue)

(28)

(30)

(Rainey, 2002)

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(65)

(30)

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(0.72%)

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(Ashley, Brian, Deanna,

Sooyeon & Katherine; 1999)

(18)

(395)

(Roberts, Laughlin & Wedell, 1999)

(871)

(10)

(Fassinger, 1994)

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(5)

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(4) (6) (10)

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(6.61) (17.35)

(0.89)

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(Bouton, Gallaher, Galinghouse, Leal, Rosentein & Young; 1987)

(Homophobia) (AIDS)

(90) (40)

(11)

(1.76)

(30) (14)

(18)

(528)

(0.80)

.(0.89)

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(11)

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(0.87)

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(2011)

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(Bouton,et al,

(Rainey, 2002)

.1987)

(Roberts,et al.,1999)

.(Likert)

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(11,9,7)

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(11,9,7)

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(Q)		
52	6	.5
35	2	.5
1	10	.5
47	3	.5
54	2.5	.5
27	10	.5
51	9	.5
30	2	.5
65	2.5	.5
62	5	0
15	8	.5
6	6.5	.5
13	11	.5
24	8	.5
48	10	.5
29	11	.5
21	8.5	.5
60	2	.5
12	7	.5
14	10.5	.5

(2)

(9)

(Q)		
1	8.5	.5
51	7	.5
52	6	.5
30	1	.5
27	9	.5
17	5	0
23	3	.5
13	9	.5
39	2	.5
53	4	.5
6	5	0
35	1	.5
54	3	.5
4	8	.5
47	2.5	.5
62	5	0
48	8	.5
21	7	.5
34	2	.5
14	9	.5

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		(Q)
24	6	0
5	2	.5
13	7	0
45	1	0
6	4	0
52	4	.5
12	6	.375
14	7	.5
31	5	.375
23	3	.5
42	2	.5
29	7	.5
49	3	.5
63	6	0
43	6	.375
62	4	.5
21	5	0
27	7	.5
65	3	.5
30	1	0

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($\alpha \leq 0.05$)

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(Significance Tests To Compare Two Independent (Feldt Test)
 .Cronbach Alpha Values)

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(3,4,5)

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Significance Tests to Compare Two Independent Cronbach Alpha Values

(Spreadsheet prepared by Hoi K. Suen, Penn State University, 2009. Contact HoiSuen@psu.edu)

Use the Feldt Test on the left for large samples; use the Fisher-Bonett test on the right for small samples.

The Feldt test (for large samples, N>99)
 Based on Feldt (1969) *Psychometrika* 34, 363-373.

Enter data in table below.
 Enter higher alpha as Test 1:

Test	Alpha	Sample size
1	0.7200	142
2	0.6500	142

RESULTS

W statistic	p
0.8000	0.0932

The Fisher-Bonett test (for small samples, N<100)
 Based on Kim & Feldt (2008) *J. of Ed. Measurement*, 45, 179-193.

Enter data in table below.
 Enter higher alpha as Test 1:

Test	Alpha	Sample size	No. of items
1	0.0000	0	0
2	0.0000	0	0

RESULTS

Std. error	Z statistic	p

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Significance Tests to Compare Two Independent Cronbach Alpha Values

(Spreadsheet prepared by Hoi K. Suen, Penn State University, 2009. Contact HoiSuen@psu.edu)

Use the Feldt Test on the left for large samples; use the Fisher-Bonett test on the right for small samples.

The Feldt test (for large samples, N>99)
Based on Feldt (1969) *Psychometrika* 34, 363-373.

Enter data in table below.
Enter higher alpha as Test 1:

Test	Alpha	Sample size
1	0.8000	142
2	0.6500	142

RESULTS	W statistic	p
	0.5714	0.0005

The Fisher-Bonett test (for small samples, N<100)
Based on Kim & Feldt (2008) *J. of Ed. Measurement*, 45, 179-193.

Enter data in table below.
Enter higher alpha as Test 1:

Test	Alpha	Sample size	No. of Items
1	0.0000	0	0
2	0.0000	0	0

RESULTS	Std. error	Z statistic	p

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Significance Tests to Compare Two Independent Cronbach Alpha Values

(Spreadsheet prepared by Hoi K. Suen, Penn State University, 2009. Contact HoiSuen@psu.edu)

Use the Feldt Test on the left for large samples; use the Fisher-Bonett test on the right for small samples.

The Feldt test (for large samples, N>99)
Based on Feldt (1969) *Psychometrika* 34, 363-373.

Enter data in table below.
Enter higher alpha as Test 1:

Test	Alpha	Sample size
1	0.8000	142
2	0.7200	142

RESULTS	W statistic	p
	0.7143	0.0233

The Fisher-Bonett test (for small samples, N<100)
Based on Kim & Feldt (2008) *J. of Ed. Measurement*, 45, 179-193.

Enter data in table below.
Enter higher alpha as Test 1:

Test	Alpha	Sample size	No. of Items
1	0.0000	0	0
2	0.0000	0	0

RESULTS	Std. error	Z statistic	p

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	(11)		(9)	
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	W			
.0932	.8000	142	.72	
		142	.65	
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	(W=.8000)		(5)	
	(.0932)			($\alpha \leq 0.05$)
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	W			
.0005	.5714	142	.80	
		142	.65	
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	(W=0.5714)		(6)	

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($\alpha \leq 0.05$)

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W			
.0233	.7143	142	.80
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(11,9,7)

(.65 ,.72

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(Bouton.at,1987)

(Fassinger,1994)

(Fassinger,1994)

(Rainey,2002)

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(Rainey,2002)

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Frequencies Statistics

Items	N		Median	Percentiles		
	Valid	Missing		25	50	75
Item 1	40	0	10	9	10	10
Item 2	40	0	9.5	8	9.5	10
Item 3	40	0	8	8	8	9
Item 4	40	0	9	10	9	11
Item 5	40	0	2.5	1	2.5	3
Item 6	40	0	6.5	5	6.5	6
Item 7	40	0	9	9	9	10
Item 8	40	0	9	8	9	10
Item 9	40	0	3	3	3	5
Item 10	40	0	8	7	8	9
Item 11	40	0	8	7	8	8.75
Item 12	40	0	7	8	7	9
Item 13	40	0	11	9	11	10
Item 14	40	0	10.5	9	10.5	10
Item 15	40	0	8	8	8	9
Item 16	40	0	3	4	3	6
Item 17	40	0	9	8	9	11
Item 18	40	0	8.5	8	8.5	10
Item 19	40	0	9	9	9	10
Item 20	40	0	2	1	2	3
Item 21	40	0	8.5	8	8.5	9
Item 22	40	0	2	1	2	4
Item 23	40	0	3	2	3	4
Item 24	40	0	8	8	8	9
Item 25	40	0	3	2	3	4
Item 26	40	0	9	9	9	10
Item 27	40	0	10	9	10	10
Item 28	40	0	3	2	3	4
Item 29	40	0	11	10	11	11
Item 30	40	0	2	1	2	2
Item 31	40	0	8	7	8	8
Item 32	40	0	8	7	8	11
Item 33	40	0	3	1	3	4
Item 34	40	0	2	1	2	3
Item 35	40	0	2	1	2	2
Item 36	40	0	3	2.25	3	4
Item 37	40	0	9	8	9	10
Item 38	40	0	8	8	8	10
Item 39	40	0	3	2.25	3	4
Item 40	40	0	8	8	8	11
Item 41	40	0	7	6	7	8
Item 42	40	0	3	3	3	4.75
Item 43	40	0	9	8	9	10

Items	N		Median	Percentiles		
	Valid	Missing		25	50	75
Item 44	40	0	9	8	9	10
Item 45	40	0	2	1.25	2	3
Item 46	40	0	10	9	10	11
Item 47	40	0	3	2	3	3
Item 48	40	0	10	10	10	11
Item 49	40	0	4	3.25	4	5
Item 50	40	0	10	9	10	11
Item 51	40	0	9	9	9	10
Item 52	40	0	6	5	6	6
Item 53	40	0	4	3	4	5
Item 54	40	0	2.5	2	2.5	3
Item 55	40	0	9	8	9	9.75
Item 56	40	0	8.5	7	8.5	9
Item 57	40	0	4	3	4	5
Item 58	40	0	8	7	8	9
Item 59	40	0	2	1	2	3
Item 60	40	0	2	1	2	2
Item 61	40	0	2	1	2	2
Item 62	40	0	5	5	5	5
Item 63	40	0	9	8	9	10
Item 64	40	0	9	8	9	10
Item 65	40	0	2.5	2	2.5	3

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Frequencies Statistics

Items	N		Percentiles			
	Valid	Missing	Median	25	50	75
Item 1	40	0	8.5	8	8.5	9
Item 2	40	0	7.5	6	7.5	8
Item 3	40	0	7	6.25	7	8
Item 4	40	0	8	8	8	9
Item 5	40	0	2	1	2	3
Item 6	40	0	5	5	5	5
Item 7	40	0	7	6	7	7
Item 8	40	0	7	6	7	7
Item 9	40	0	2	1	2	3
Item 10	40	0	7	7	7	8
Item 11	40	0	7	6	7	8
Item 12	40	0	7	6	7	8
Item 13	40	0	9	8	9	9
Item 14	40	0	9	8	9	9
Item 15	40	0	7	6	7	8
Item 16	40	0	3	2	3	5
Item 17	40	0	5	5	5	5
Item 18	40	0	5	3.25	5	7
Item 19	40	0	8	8	8	9
Item 20	40	0	2	1.25	2	3
Item 21	40	0	7	7	7	8
Item 22	40	0	2	6.25	2	3
Item 23	40	0	3	2	3	3
Item 24	40	0	7	6	7	7
Item 25	40	0	2	1	2	2.75
Item 26	40	0	7	6	7	7
Item 27	40	0	9	7	9	8
Item 28	40	0	2	1	2	3
Item 29	40	0	9	7	9	8
Item 30	40	0	1	1	1	2
Item 31	40	0	7	6	7	7
Item 32	40	0	6.5	2.25	6.5	5
Item 33	40	0	2	1	2	3
Item 34	40	0	2	1	2	2
Item 35	40	0	1	1	1	2
Item 36	40	0	2	1	2	3
Item 37	40	0	8	8	8	9
Item 38	40	0	8	8	8	9
Item 39	40	0	2	1	2	2
Item 40	40	0	7	6	7	8
Item 41	40	0	6	5	6	7
Item 42	40	0	2	1	2	3
Item 43	40	0	8	8	8	9

Items	N		Median	Percentiles		
	Valid	Missing		25	50	75
Item 44	40	0	7	6	7	7
Item 45	40	0	2	1	2	3
Item 46	40	0	8	7	8	9
Item 47	40	0	2.5	2	2.5	3
Item 48	40	0	8	8	8	9
Item 49	40	0	4	3	4	5
Item 50	40	0	8	7	8	9
Item 51	40	0	7	6	7	7
Item 52	40	0	6	5	6	6
Item 53	40	0	4	4	4	5
Item 54	40	0	3	3	3	4
Item 55	40	0	7	6	7	7
Item 56	40	0	8	8	8	9
Item 57	40	0	3	1	3	3
Item 58	40	0	7	6	7	8
Item 59	40	0	2	1	2	3
Item 60	40	0	3	1.25	3	4
Item 61	40	0	3	2.25	3	4
Item 62	40	0	5	5	5	5
Item 63	40	0	7.5	7	7.5	8
Item 64	40	0	7	6	7	7
Item 65	40	0	3	1	3	4

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Frequencies Statistics

Items	N		Median	Percentiles		
	Valid	Missing		25	50	75
Item 1	40	0	6	4	6	7
Item 2	40	0	6	4	6	6
Item 3	40	0	5.5	5	5.5	6
Item 4	40	0	6	6	6	7
Item 5	40	0	2	2	2	3
Item 6	40	0	4	4	4	4
Item 7	40	0	5.5	5	5.5	6
Item 8	40	0	6	4	6	7
Item 9	40	0	2	2	2	3
Item 10	40	0	5	4	5	5
Item 11	40	0	6	6	6	7
Item 12	40	0	6	5.25	6	6
Item 13	40	0	7	7	7	7
Item 14	40	0	7	6	7	7
Item 15	40	0	5	4	5	6
Item 16	40	0	2	1	2	3
Item 17	40	0	4	3	4	4
Item 18	40	0	5	3	5	6.75
Item 19	40	0	6	6	6	7
Item 20	40	0	2	1	2	3
Item 21	40	0	5	5	5	5
Item 22	40	0	3	1	3	4
Item 23	40	0	3	3	3	4
Item 24	40	0	6	6	6	6
Item 25	40	0	2	1	2	3
Item 26	40	0	5	4	5	5
Item 27	40	0	7	6	7	7
Item 28	40	0	2	2	2	3
Item 29	40	0	7	6	7	7
Item 30	40	0	1	1	1	1
Item 31	40	0	5	4.25	5	5
Item 32	40	0	5	4	5	7
Item 33	40	0	2	2	2	3
Item 34	40	0	2	1	2	3
Item 35	40	0	1	1	1	2
Item 36	40	0	2	1	2	3
Item 37	40	0	6	6	6	7
Item 38	40	0	6	6	6	7
Item 39	40	0	2	1	2	2
Item 40	40	0	5	4	5	6
Item 41	40	0	4.5	4	4.5	6
Item 42	40	0	1.5	1	1.5	2
Item 43	40	0	6	5.25	6	6

Items	N		Median	Percentiles		
	Valid	Missing		25	50	75
Item 44	40	0	5	4	5	5
Item 45	40	0	1	1	1	1
Item 46	40	0	6	5	6	6
Item 47	40	0	2	2	2	3
Item 48	40	0	6	6	6	7
Item 49	40	0	3	3	3	4
Item 50	40	0	6	5	6	6
Item 51	40	0	5	4	5	5
Item 52	40	0	4	3	4	4
Item 53	40	0	2	1	2	2.75
Item 54	40	0	2	1	2	3
Item 55	40	0	6	5	6	7
Item 56	40	0	6	5	6	7
Item 57	40	0	3	1	3	3
Item 58	40	0	5.5	5	5.5	6
Item 59	40	0	2	1	2	3
Item 60	40	0	2	1	2	2.75
Item 61	40	0	2	1	2	2
Item 62	40	0	4	3	4	4
Item 63	40	0	6	6	6	6
Item 64	40	0	6	6	6	7
Item 65	40	0	3	3	3	4

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